

NURS 821 Gastrointestinal Disorders

Lecture 8 Part 7 Disorders of the Liver and Pancreas

Cirrhosis of the Liver

- Definition and pathophysiology-Hepatic scarring caused by inflammation produces ischemia and altered function
- Incidence-8th leading cause of death, killing 25,000 each year



Cirrhosis Types and Pathophysiology

- 1. Laennec (alcoholic, portal, fatty)-alcohol induced
- 2. Biliary-
 - A. Primary-? Possibly autoimmune
 - B. Secondary-obstruction-stones, tumors, etc.
- 1. After 10+ years of heavy drinking
- Blocks normal protein, fat, carbohydrate metabolism
- Fat accumulation, inflammation
- 2.
 - A. Inflammation and lobular bile duct scarring
 - B. Bile duct inflammation and scarring proximal to obstruction

Cirrhosis types

Types

- 3. Postnecrotic-hepatitis, drug toxicity
- 4. Metabolic-metabolic and storage defects-

Pathophysiology

- 3. Hepatitis C ranks #1 with alcohol
- Fibrous, nodular scar tissue replaces necrotic tissue
- 4. Changes depend on etiology

Cirrhosis (NIDDK, 2000)

- Causes:
 - Alcoholic liver disease
 - Chronic hepatitis B, C, and D
 - Autoimmune hepatitis
 - Inherited diseases
 - Nonalcoholic steatohepatitis (NASH)
 - Blocked bile ducts
 - Drugs, toxins, infections



Cirrhosis Manifestations (NIDDK, 2000)

- Early-asymptomatic



- Vague symptoms-exhaustion, fatigue, anorexia, n, weakness, wt. loss

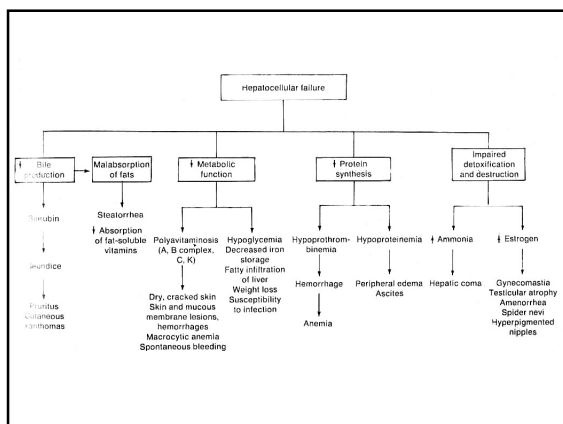
Cirrhosis Manifestations and Complications Relate to:

- Altered hormone and drug detoxification
- Altered protein synthesis
- Increased hydrostatic pressure
- Altered clotting factor formation

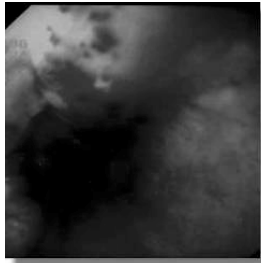
Cirrhosis Complications (NIDDK, 2000)

- Edema and ascites
- Bruising and bleeding
- Jaundice, itching
- Gallstones
- Toxins in blood and CNS
- Medication sensitivity
- Portal hypertension
- Varices
- Other organ dysfunction (NIDDK, 2002)





Esophageal Varices



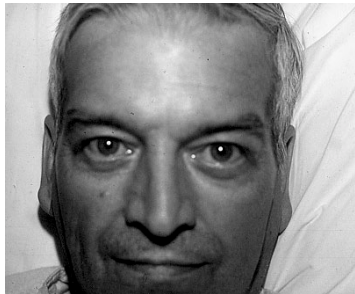
Multisystem Effects of Liver Failure

- **General**-wk., AA, wt. Loss, energy loss, pathologic fractures, fetor hepaticus
- **CV-BP** chg., dysrhythmias, bounding pulses
- **Pulm.**-pleural effusion, hypoxia, hypoventilation
- **Renal**-dec. RBF, brown urine, dec. output, inc. urine bilirubin and urobilinogen
- **Dermatologic**- spider angiomas, palmar erythema, vascular spiders, pruritus, jaundice
- **Neurologic**-personality changes, disorientation, sensory alterations, asterixis, peripheral nerve degeneration, coma, kernicterus

Multisystem Liver Failure Effects

- **Hematologic**-bruising, nosebleeds, petechiae, thrombocytopenia, anemia
- **Neurologic**-personality chges., disorientation, sensory alterations, asterixis, peripheral nerve degeneration, coma, kernicterus (neonates)
- **Fluid/electrolytes**-ascites, hypokalemia, hypocalcemia, hypomagnesemia, dilutional hyponatremia, inc. ammonia
- **GI**-esophageal and rectal varices, clay colored stools
- **Endocrine**-gynecomastia, testicular atrophy

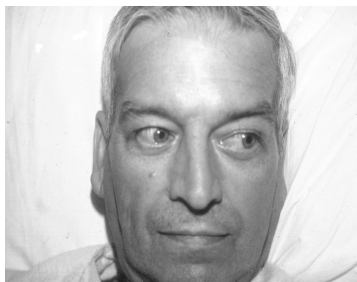
Jaundice, Melanin



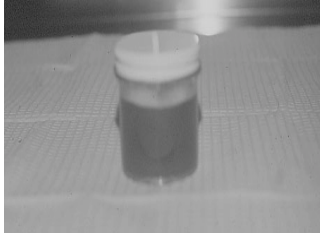
Telengectia



Jaundiced Sclera



Bilirubinuria, Proteinuria



Ascites



Caput Medusae



Caput Medusae, Portal HTN

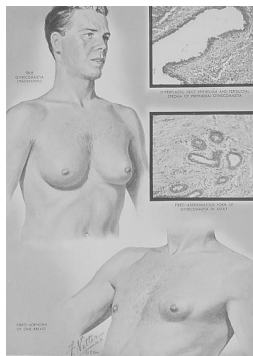


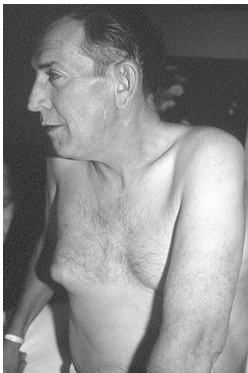
Pitting Edema



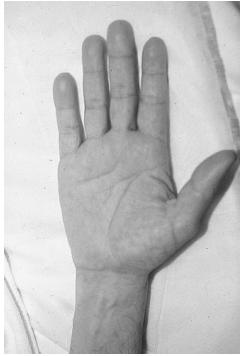








Gynecomastia



Spider Nevi



Spider Nevi

